



Charlestown Township EAC NATURE NEWS

Brought to you by:
The Charlestown Township Environmental Advisory Committee (EAC), Chester County, PA
May, 2025

Butterflies, bees, flowers and trees
Thank goodness we have all of these

Gratitude for the items above
But caution, handle these with love

Cherish the beauty of the season
Our survival as a species is the reason

What can you do to preserve this splendor?
Learn, teach, notice, be a nature-mender



MISSION

The Charlestown Environmental Advisory Committee's (EAC) mission is to advise the Board of Supervisors on environmental issues, the protection and preservation of natural resources, the use of open land and creating inventories of natural areas with unique features. All advice to be focused within the township and in the best interest and general welfare of its residents.

You are receiving this email because at some event or activity or through networking you signed up to be on the Charlestown EAC mailing list. Please feel free to share this with others who might be interested in future volunteer activities. To see the EAC's annual meeting schedule go to [Charlestown Township](https://www.charlestownpa.org/).

NOTE: If you are aware of anyone who would enjoy receiving this quarterly newsletter, please let me or anyone in the Charlestown Township EAC know.

HAPPENINGS/ THINGS TO KNOW

- Learn about timely township news and notifications by signing up for the Charlestown Township weekly email. <http://www.charlestown.pa.us/updates.aspx>
 - The Single Use Plastics ban will take effect in Charlestown Township in June. Businesses are being notified.
 - Warning – there is a blight that is killing 90%-100% of beech trees, and thus depriving woodland birds and mammals of their highly nutritious beechnuts. For more information see the most recent Charlestown Township newsletter.
 - An educational presentation was given by Dr. Carol Armstrong in March regarding plastics in our bodies. See https://charlestown.pa.us/environmental_advisory_committee.aspx.
 - Chester County held a Sustainability Conference on May 17th at West Chester University.
 - Kestrel banding will take place at Brightside Farm Park on June 5th. See the Charlestown Township website for details.
 - PA Native Species Day was celebrated on May 20th at Brightside Farm Park.
- Art contest winners were announced.

1st place Art Work per grade

- Leo, Charlestown Playhouse, Blue Room, "Black Eyed Susan"
- Adler, CES Kindergarten, "Field Sparrow"
- Elizabeth, CES Grade 1, "Thin leaf Sunflower"
- Erika, CES Grade 2, "Cedar Waxwing"
- Annabelle, CES Grade 3, "Red Fox"
- Katherine, CES Grade 4, "Black Eyed Susan, Eastern Hemlock, Ruffed Grouse, White tailed deer"
- Owen, Grade 5, special mention, "Fresh Water Crayfish"

This issue is part 6 of a series focusing on Sustainability and the topic is 'the future of sustainability.'

Now that we have covered many aspects of sustainability, let's look at what is in the works for the future.

A Framework for the Future



The Nature Conservancy asks; Is this world possible? That is a question more and more eco-concerned groups and individuals are asking. Here is a quote from the Conservancy: "yes, but it will require new forms of collaboration across traditionally disconnected sectors, and on a near unprecedented scale". The needs of both people and nature must be met. Can we meet people's needs for food, water and energy while doing more to protect nature? (1)

If we continue with "business as usual", the increasing population growth and consequent need for more water, food, and energy put us at risk of being trapped in an intensifying cycle of scarcity. By 2050 we can expect global temperatures to increase 3.2°C; air pollution to worsen, affecting 4.9 billion more people; overfishing to extend to 84% of fish stocks; and greater water stress affecting 2.75 billion people. Habitat loss continues, leaving less than 50% of native grasslands and several types of forests intact. (1)

Economic and environmental health are not mutually exclusive. There must be global strategies to both protect nature and provide sustenance for the world's population.

United Nations' Sustainable Development Goals (SDGs) are a set of 17 measures for "a world where all people are fed, healthy, employed, educated, empowered and thriving, but not at the expense of other life on Earth." The goal date is 2030 (2).

Here are the 17 SDGs

1. No Poverty
2. Zero Hunger
3. Good Health and Wellbeing
4. Quality Education
5. Gender Equality
6. Clean water and sanitation
7. Affordable clean energy
8. Decent work and economic growth
9. Industry innovation and infrastructure
10. Reduced inequalities
11. Sustainable cities and communities
12. Responsible consumption and production
13. Climate Action
14. Life below water
15. Life on land
16. Peace, Justice and Strong Institutions
17. Partnerships for the goals

Each one of these items is daunting in scope, vague, and difficult to achieve.

One important note: Hopefully the future will lead to innovations that facilitate the implementation of these goals. However, we have the know-how now to make changes that can help in the interim.

Note 2: The US is not the only culprit in this battle. Every country, city, town on earth has a responsibility to share in the work necessary to achieve the future health of our planet.

First, everyone should continue to foster and increase their own sustainability by decreasing their carbon footprint. This has been discussed at length in past issues of this newsletter.

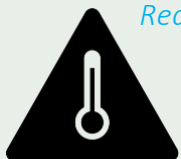
Conservation Efforts



We focus here on what conservation programs and corporate interests are doing to decrease waste and greenhouse gases. There are many conservation organizations that are working hard to make a difference. Here are a few goals they are pursuing (at a very high level).

1. Reducing or changing how we generate and use energy
2. Ensuring animal diversity is maintained and encouraged
3. Adding acreage to protected lands and habitats
4. Teaching others how to increase conservation work
5. Teaching farmers how to use less water and land
6. Using science to find new ways to pollute less
7. Making businesses more sustainable

Probably the most important is energy usage as it pertains to climate change, air quality and the use of natural resources.



Reducing or changing how we generate and use energy

If we continue our current behavior, according to the Nature Conservancy, by 2050 76% of energy will come from fossil fuels. It is necessary to reduce this to 13% by 2050 to staunch the flow of greenhouse gases. This can only be achieved with a crossover to renewable energy sources, including wind, solar, and nuclear sources (nuclear is also very controversial). At the same time, we need to draw down the amount of carbon being released into the atmosphere using land management strategies such as stopping forest loss, reforestation, investments in soil health and coastal ecosystem restoration (The Nature Conservancy (TNC)).

Ironically, the conversion to renewable energy sources seems to be in direct conflict with #3 and #5 above. Wind and solar farms for example need large open spaces. This can be mitigated in two ways; build new farms on land already

converted for this purpose, and exclude the expansion of biofuel generation, replacing those sites with renewable energy sites.

Teaching farmers how to use less water and land

A second critical change needed is the usage of land for food production. Our current growth of population and hence need for more farmland is unsustainable – too much land and water are used. Ways to mitigate this include:

- Reducing our dependency on animal protein sources.
- Maximizing the value of different pieces of land to grow specific crops for example, putting more “thirsty” crops in areas with more water and matching the nutrient needs of various crops to the soils available. We need to shift food production to areas of high yield and low water stress. We can no longer grow crops in Arizona and certain areas of California for example. (TNC)
- A third “easy” solution (nothing is truly easy) is to replace deforested land with new plantings and plant more urban and suburban trees. Instead of developing housing and commercial businesses in areas that continue to experience extreme nature events, encourage minimizing this growth in favor of planting forests, meadows and grasslands. Continuing to evacuate people and rebuild in areas that repeatedly experience fires, droughts, flooding, hurricanes etc. is not sustainable and very costly.
- Regenerative farming to increase food production by using fewer resources. Once regenerative farming is established, it requires fewer inputs; less labor, fertilizer, and less machinery that uses fossil fuels. (3,4,5)



Back to Global SDGs

Unfortunately, progress towards the SDGs at a global level has been slow. More success has been achieved at the country and local levels. Scandinavian countries have been most successful, with an 85% compliance rate. It is distressing that only 17% of the SDG targets are on track.

A very important SDG is #13, Climate Action. Despite international efforts, global greenhouse gas emissions continue to rise. The United Nations reports that current climate action plans are insufficient to tackle climate change, with

increasingly frequent and intense negative weather events impacting every region on Earth. Examples include; wildfires impacting Arizona, California, Canada, and the Amazon Rain Forest, destroying millions of acres of forested land, releasing carbon back into the atmosphere. The World Meteorological Organization confirmed that 2023 was Earth's hottest year on record, with global temperatures averaging 1.45°C above pre-industrial levels. This trend underscores the urgency of accelerating climate action to meet the targets set by the Paris Agreement. (3)

Global forest loss reached unprecedented levels in 2024, largely due to the massive wildfires described above. Tropical pristine forest loss soared to 6.7 million hectares, an 80% increase from 2023, with Brazil accounting for the largest share as fires ravaged the Amazon during the worst drought ever recorded. (6)

On a positive note, there has been significant growth in renewable energy capacity. In 2023, global renewable energy capacity additions increased by 50%, setting new records in solar, wind, and water energy generation. (3). Southeast Asian countries such as Malaysia, Laos, and Indonesia have decreased forest loss through effective conservation policies (7).

Some collaborations working on sustainable solutions include:

The Bridge Collaborative <https://nicholasinstitute.duke.edu/project/bridge-collaborative>
Science for Nature and People Partnership (SNAPP). <https://snappartnership.net/>
The Nature Conservancy <https://www.nature.org/en-us/about-us/who-we-are/our-science>.
Natural Lands <https://natlands.org>
Sustainable Jungle <https://www.sustainablejungle.com/>
Wildlife Conservation Society. <https://www.wcs.org/>

Some Local efforts include:

The Stroud Preserve <https://www.natlands.org/visit/stroud-preserve/>
Penn State University <https://sustainability.psu.edu/>
Sustainable Resources Group. <https://sustainableresourcesgroup.com/>
Chester County Planning Commission <https://ChescoPlanning.org/>

As discouraging as positive progress has been, we can focus on the good work being done on a more local level. Individuals cannot solve the climate crisis alone. However, we can do our part to make a difference and pass our message to others.

References

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4. <https://www.zeroacre.com/blog/regenerative-agriculture>
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